

### ABSTRACT

The turbo engine comprises rotor blades made of an electrically conductive material with an electrically insulating surface, said rotor blades being rotatably mounted on a rotor shaft arranged in a housing. The electrically conductive material of the rotor blades is electrically connected to a reference potential. At least one measuring element is arranged in the area of the rotor blades, said measuring element being intended for measuring an electrical and/or magnetic field strength caused by charge distribution on the surface of the rotor blades.